

# Investigating the Causal Effect of Prompted Reflection on Support for Abolition

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## Abstract

As uprisings over the summer of 2020 have brought discourse around abolition into popular discourse, questions of how to cultivate critical consciousness through political education continue to arise. Critical pedagogy has been heavily theorized about as a means to cultivate the consciousness needed to sustain social movements such as the abolitionist movement. Reflection is seen as a crucial component to such effective political education. Thus, we conducted an experiment to begin answering the question: does prompted reflection have a greater effect on support for abolition of the prison industrial complex than unguided learning? Our results found no statistically significant effect of prompted reflection, however, we believe that further research is necessary.

## Introduction

Abolitionist demands, such as defunding the police, have gained traction in popular consciousness over the past couple months as a result of national uprisings after the deaths of George Floyd, Breonna Taylor, Nina Pop, Tony McDade, and countless others whose lives have been lost at the hands of carceral state. The movement from abolition has a long history and seeks to divert resources from the prison industrial complex (PIC) to life-affirming services for communities, particularly those who have been most impacted by the PIC, including Black, Indigenous, and people of color, LGBTQIA+ people, low-income people, disabled people, and those who live at the intersections of any of these identities. This particular moment has opened up an opportunity to educate and bring people into the abolition movement, and there are questions about what is the most effective way to cultivate such consciousness. Critical pedagogy is an approach to education that challenges oppression and domination, as well as the practices that allow these systems to proliferate. At its heart, this pedagogical approach creates the context in which students will reflect on their own positionality and act to transform oppressive conditions. In *Pedagogy of the Oppressed*, Paulo Freire explicates that the path to liberation is not “purely intellectual but must involve action; nor can it be limited to mere activism but must include serious reflection” (Freire, 2017, p. 65). The confluence of both reflection and meaningful action is praxis, which is the key ingredient for social change.

Situated in critical pedagogical thought as a means to generate social change, we conducted an experiment to begin answering the question: does prompted reflection have a greater effect on support for abolition of the prison industrial complex than unguided learning? Due to resource and time constraints, conducting an experiment exploring the effects of critical pedagogy as a whole proved to be unfeasible. This experiment allowed for us to begin scratching the surface of potential work that could be done in this arena, as there currently is a lack of literature studying the causal effects of critical pedagogy, by isolating what we saw as a critical component of the pedagogical framework. Thus, we hypothesized that prompted reflection would generate more support for abolition of the prison industrial complex.

## ***Methods***

### *Participation*

We sourced participants for our experiment among our family and friends as well as the UC Berkeley XLab group, which primarily consists of undergraduates, graduate students, and alumni. Participants were offered \$5 for their completion of the survey. As an initial pilot, the survey was first distributed only to family and friends. After confirming that randomization and blocking was working correctly, the survey was extended to the XLab community. In total, we collected 122 initial responses from participants.

Participants were all required to read “What Abolitionists Do” by Dan Berger, Mariame Kaba, and David Stein to passively engage in abolitionist thought, after which participants were randomized into treatment/control groups. Two reading comprehension questions were included after the mandatory article to ensure that all participants truly understood the reading. After excluding incomplete responses and participants who did not correctly answer the reading comprehension questions, we were left with 100 final participants. The flow diagram in Figure 1 illustrates the overall experimental design detailed in the sections below.

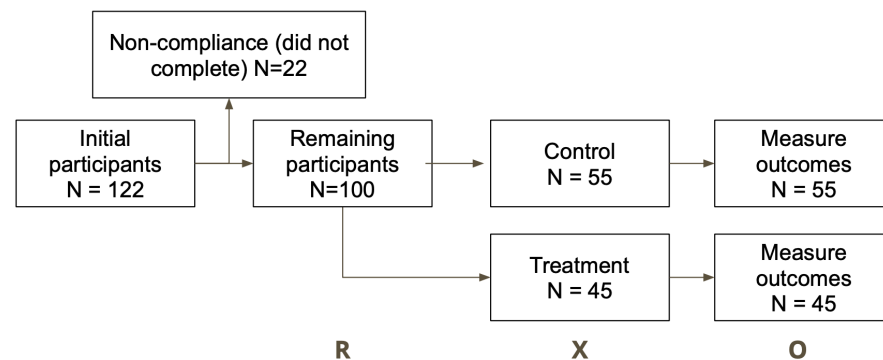


Figure 1. Experimental design flow. One hundred and twenty two participants started the survey. After removing participants with incomplete responses and those who did not understand the required reading, the remaining 100 participants were blocked by political leaning and randomized into control and treatment groups.

### *Randomization*

In the randomization stage, participants were blocked based on their political leaning (liberal, conservative, or independent); within each of the blocks, participants were randomly assigned into the treatment or control groups. Even though covariates such as age, annual household income, level of education, race, and gender were also collected, due to the limitations in the number of participants we were able to collect, we decided to block on the factor that was potentially most correlated with level of support for abolition.

Ultimately, we had 45 participants in treatment and 55 in control. In order to confirm that the randomization and blocking were performed successfully, we ran a covariate balance check by regressing the treatment flag on our covariates, age, political leaning, income, education, and gender. We ran an ANOVA/F-test to determine whether the model with all covariates was better at predicting treatment than a simple model with just a constant. As seen in Table 1, we obtained a p-value of 0.31 in the ANOVA and thereby cannot reject the null hypothesis that our covariates are no better at predicting treatment than random chance. Overall, our covariates appear to be balanced between control and treatment.

#### Analysis of Variance Table

```
Model 1: treatment ~ 1
Model 2: treatment ~ 1 + age + political_leaning + hh_income + race +
          education + gender
  Res.Df  RSS Df Sum of Sq    F Pr(>F)
1       99 24.8
2       79 19.1 20      5.61 1.16  0.31
```

Table 1. Covariate balance check. An ANOVA comparing a model regressing treatment on all our covariates results in a p-value of 0.31 compared to a model regressing treatment on only a constant. Overall, we conclude that our covariates are balanced between treatment and control.

### *Treatment*

Treatment participants were required to reflect on the article by answering a question in 50 words or more: “What does safety mean to you? How does this relate to what you read in the article?”

Participants in the control group were not required to further reflect or engage on the reading prior to answering the outcome questions.

All treatment participants complied as all 45 individuals answered the prompt with the required essay length; none had nonsensical letters typed simply to advance in the survey.

### *Potential outcomes*

In order to determine whether prompted reflection has an effect on abolition support, we conducted an RXO experiment, randomizing participants into control/treatment groups and measuring only post-treatment outcomes. Post-treatment difference-in-means outcomes were compared between treatment and control groups. We decided not to opt for an ROXO, within-subjects, design in which both pre- and post-treatment outcomes are measured to minimize the risk of violating the excludability assumption. Due to the short length of the survey and clear goals of our experiment, a ROXO structure runs the risk of a participant remember their responses in an initial observation and tailoring their post-treatment responses based on their potential support for a researcher's efforts rather than answer based on their true beliefs on the prison industrial complex / police abolition.

Five different outcomes were measured for analysis (table 1). Four questions measured opinions while one measured a monetary decision to determine whether participants would take active steps to support police abolition. Of the opinion questions, three were based on a 0 to 10 (strongly disagree to strongly agree) integer scale. In order to test whether a wider and more granular scale would allow us to measure smaller changes in level of support, one question was asked on a 0-100 sliding scale between negative and positive: "After reading the article, how do you feel overall about police abolition?" We hypothesized that treatment participants would have higher levels of support for and interest in police abolition compared to those in control. To account for decision fatigue, the order of the opinion questions were randomized for each survey.

The last outcome measured included a question asking participants whether they would be willing to allow the research team to donate a portion of their \$5 reward to Survived and Punished in support of the abolitionist cause thereby decreasing the amount of compensation they would receive from the survey; participants were allowed to choose the number of cents they would want to donate ranging from 0 to 500. While we hypothesized that treatment participants would want to donate more than control, due to the challenges of actually facilitating such a donation, the last page of the survey revealed to all participants that they would actually receive the full \$5 but that they would be encouraged to donate through two links to abolition supporting organizations.

Three additional questions, intended for potential future follow-up, were given to participants but not analyzed. One asked participants about whether police made them safer. One asked participants whether they would like to learn more about abolition. The last tracked whether participants clicked on any of the donation links on the last page of the survey.

Question Type	Range of Output	Question
Opinion	0 - 10 (Strongly disagree to strongly agree)	I support defunding prisons and re-allocating funds
		I support defunding the police and re-allocating funds
		The government should stop building prisons
	0 - 100 (Negative to positive)	How do you feel about police abolition?
Monetary	0 - 500 cents (Donation amount)	How much of your \$5 would you like us to donate on your behalf?
Additional questions (not analyzed)	0 - 10 (Strongly disagree to strongly agree)	Police make us safer
	Yes or No (Binary outcome)	I would like to learn more about abolition.
	Yes or No (Binary outcome)	Unfortunately, we are not able to donate on your behalf, please click any of these links to donate directly.

Table 2. Outcomes. List of post-treatment outcome questions asked to all participants.

### *Statistical Power*

Due to financial constraints, we expected to obtain around 100 participants. Assuming randomization worked as expected, about half of the participants would be in treatment and half in control. Assuming the standard 5% significance threshold, we calculated the statistical power we would expect from different effect sizes in figure 2. If there was a large effect size of 0.8 on any of our outcome measures, we would be able to identify significance at the 5% level in 98% of trials. If we assume a medium effect size of 0.5, that percentage drops to 70%. However, if our treatment only had a very small effect (0.2 effect size), unfortunately, we would probably not be able to reject the null hypothesis of no effect without repeating the experiment with a larger sample size as power is only 17%.

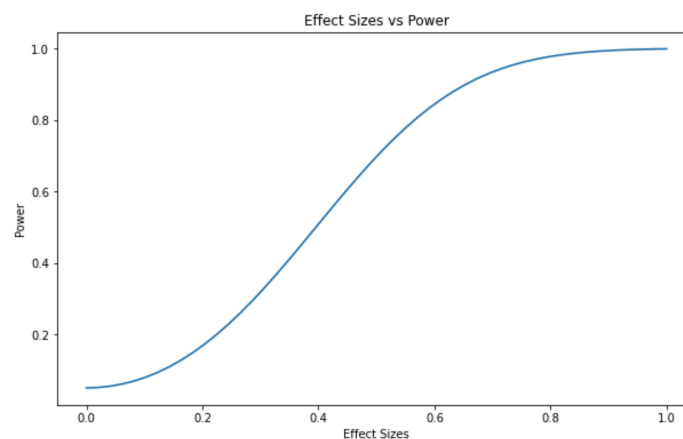


Figure 2. Effect Sizes vs Power. Assuming about 100 participants evenly balanced across treatment and control, medium (0.5) or large (0.8) effect sizes would be required to have greater than 50% power, assuming a standard 5% significance threshold.

## Analysis

### *Data Cleanup and Exploratory Data Analysis*

As part of the data cleanup, all categorical covariate variables were converted into factors. For consistency, the answers to “How do you feel about police abolition”, which were originally between 0 and 100 were scaled to float-type numbers between 0 and 10 for consistency with the other opinion variables. Both the histogram (Figure 3) and box plot (Figure 4) seems to suggest that the distribution of outcomes between control and treatment groups were similar.

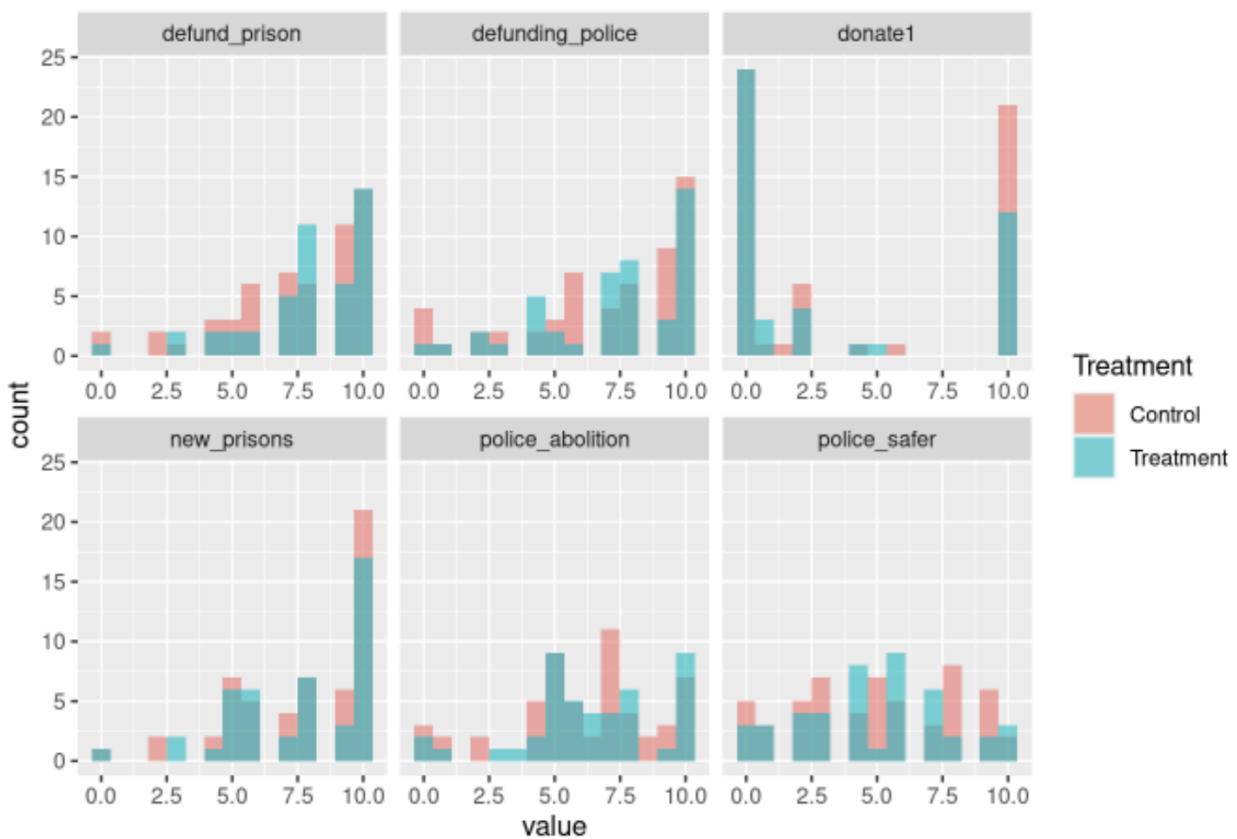


Figure 3. Histogram of outcome variables. Overall, it appears that the distribution of outcomes between control and treatment groups are similar.

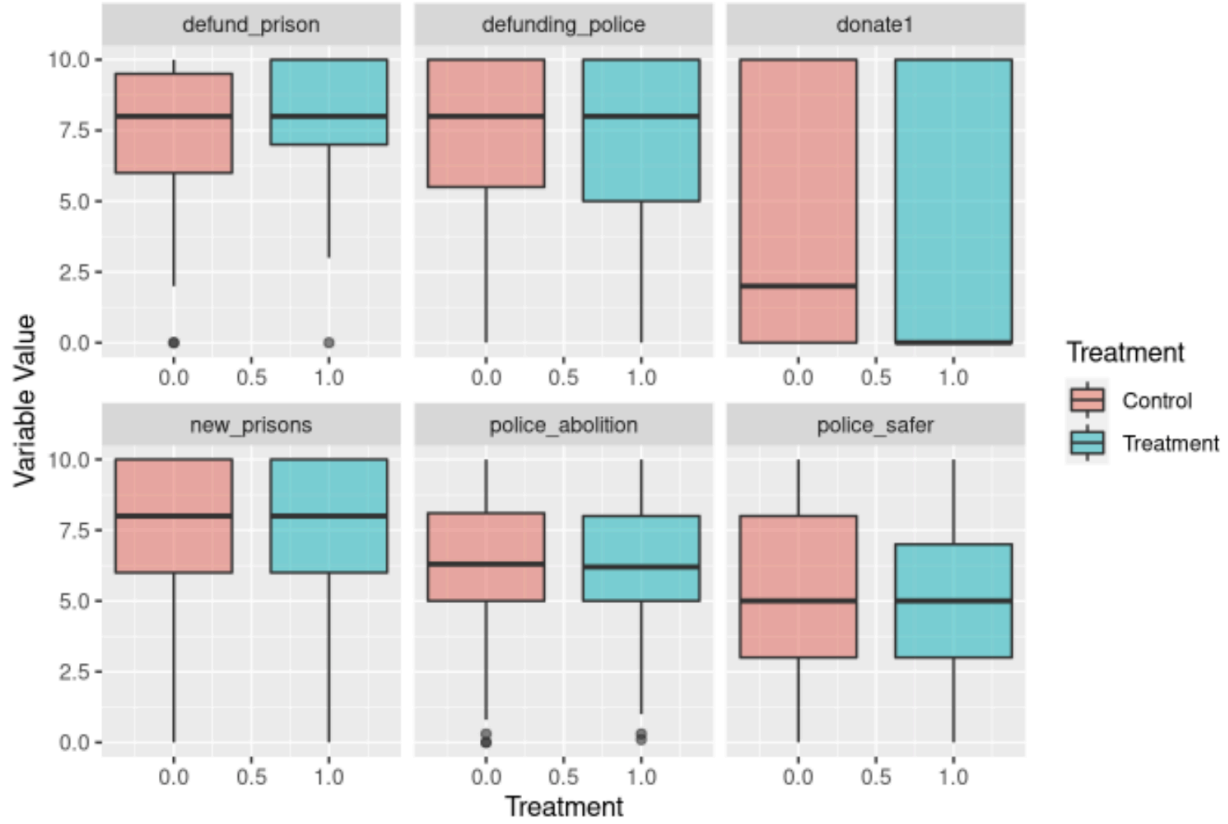


Figure 4. Box plot of outcome variables. Overall, it appears that the distribution of outcomes between control and treatment groups are similar.

### Models

Using a causal analysis framework, we found no significant treatment effect of receiving a prompted reflection on support for abolition, detailed in the regressions in tables 3 through 7. Because we realized the survey takers from the XLab were predominantly undergraduate students at UC Berkeley, who are very different survey takers who were family and friends, we used an indicator to separate the groups to assess their effect. We still did not find any effect from the treatment.

For the regression framework, we used the following general specification:

$$Y_i = \beta * T_i + \alpha_i + \epsilon_i$$

where Y indicates our outcome of interest (money donated, attitudes towards defunding the police, attitudes towards police abolition, attitudes towards defunding prisons, and attitudes towards new prison construction), T takes the value of one if the person received a reflection prompt on support for abolition, and i indexes people. In all specifications, the control group is the omitted/reference category. The regression equation includes political leaning fixed effects  $\alpha$  because randomization was stratified by political leaning.

We chose four models to analyze each of the five output variables. The first model is a short model showing the effect of the treatment on the outcome. The second model adds the blocking variable (political leaning) . The third model includes the second model and an indicator on whether a participant was sourced from the Xlab. The last model is a long model which includes the treatment, XLab indicator, political leaning, age and gender.

Specifically, for model 1, we estimate :

$$Y_i = \beta * Treatment_i + \epsilon_i.$$

For model 2, we estimate:

$$Y_i = \beta * Treatment_i + \alpha * Political Leaning_i + \epsilon_i$$

For model 3, we estimate:

$$Y_i = \beta * Treatment_i + \alpha * Political Leaning_i + \gamma * Xlab Indicator_i + \gamma1 * Xlab Indicator * Treatment + \epsilon_i$$

For model 4, we estimate:

$$Y_i = \beta * Treatment_i + \alpha * Political Leaning_i + \gamma * Xlab Indicator_i + \gamma1 * Xlab Indicator * Treatment + \sum \delta1 * Age_i + \sum \delta2 * Gender_i + \epsilon_i$$

#### Outcome Variable 1 - Attitudes Towards Abolishing the Police

While the answers to participants' attitudes toward police abolition were originally in a 0 to 100 (negative to positive) scale, outcomes were normalized to 0-10 for consistency with the other opinion-based outcome measures.



Table 3 : Casual effect of prompted reflection on support for abolition on police-abolition

	Police Abolition			
	(1)	(2)	(3)	(4)
Treatment	0.342 (0.539)	0.377 (0.542)	1.430* (0.801)	1.170 (0.795)
Independent		2.570* (1.450)	2.140 (1.570)	2.520 (1.620)
Liberal		2.310* (1.350)	2.000 (1.460)	1.790 (1.480)
XLAB			0.096 (0.749)	-1.970** (0.918)
Age (25-39)				-2.180*** (0.818)
Age (40-54)				-3.560** (1.490)
Woman				1.590** (0.670)
Genderqueer/Non-binary				-0.562 (1.910)
Xlab-Treatment			-1.720 (1.080)	-1.780* (1.060)
Intercept	6.160*** (0.371)	3.930*** (1.390)	4.200*** (1.580)	5.410*** (1.740)
N	100	100	100	100
R2	0.004	0.050	0.089	0.244
Adjusted R2	-0.006	0.020	0.040	0.169
Residual Std. Error	2.670 (df = 98)	2.630 (df = 96)	2.610 (df = 94)	2.430 (df = 90)
F Statistic	0.406 (df = 1; 98)	1.690 (df = 3; 96)	1.830 (df = 5; 94)	3.230*** (df = 9; 90)
*p < .1; **p < .05; ***p < .01				

Table 3. Analysis of support for police abolition. The prompted reflection treatment does not have a statistically significant effect on police abolition. While not causal, age and gender covariates appear to be correlated with support for police abolition.

Overall, we found no statistically significant effect for the prompted reflection treatment on support for police abolition. While the first model regressing the output on only the treatment variable indicates an estimated effect of 3.4%, a very high robust standard error indicates that this effect is not statistically significant. Even when we add the XLab-Treatment interaction variable to test for heterogeneous treatment effects in model 3 and the full model (model 4), we see no statistically significant treatment effects.

Though the treatment was not significant, we noticed a few statistically significant covariates. While these cannot be used to make causal claims, they are interesting possible correlations arising from observation, including highly significant differences between those who were younger than 25 years of age and those who were in the older age ranges. Namely, as participants age increased, support for police abolition decreased. This seems to be in line with intuition, as those younger than 25 years old were raised during the rise of social media and acute awareness around the impacts of police violence on communities.

Another covariate that shows statistically significance at a 0.05 level is “woman”, indicating that cisgender women appear to have greater support for police abolition than cisgender men. While carceral feminism may persist as a dominant ideology, this difference indicates a possible presence of analyses that recognize the harm and violence that policing continues to have, particularly for those who are impacted by gender violence at the confluence of other identity axes such as race and sexuality (Law, 2014). Further study investigating how the confluence of these identities and the differences in responses of women at different intersections of identity would be a worthy endeavor.

## Variable 2 - Attitudes Towards Defunding the Police

Building upon our analysis, the following models explore the impact on participants’ attitudes towards defunding the police. This, as well as the rest of the outcome measures gauging attitudes, were taken on a discrete scale from 0 to 10 with 0 indicating strong disagreement and 10 indicating strong agreement. The statement presented to the subjects was: “I support defunding the police and reallocating funds to education, housing, and other programs.”

Table 4 : Casual effect of prompted reflection on support for abolition on defunding-police

	Defunding Police			
	(1)	(2)	(3)	(4)
Treatment	0.236 (0.601)	0.231 (0.616)	0.838 (0.915)	0.228 (0.914)
Independent		0.815 (2.090)	0.595 (2.230)	0.948 (2.290)
Liberal		1.870 (1.980)	1.700 (2.080)	1.640 (2.120)
XLAB			0.144 (0.924)	-1.660* (0.953)
Age(25-39)				-1.630* (0.860)
Age(40-54)				-4.600*** (1.600)
Woman				1.180 (0.794)
Genderqueer/Non-binary				0.469 (1.450)
Xlab-Treatment			-1.010 (1.250)	-0.634 (1.310)
Intercept	6.960*** (0.425)	5.380*** (2.050)	5.490** (2.240)	6.560*** (2.320)
N	100	100	100	100
R2	0.002	0.038	0.047	0.170
Adjusted R2	-0.009	0.007	-0.004	0.087
Residual Std. Error	2.990 (df = 98)	2.970 (df = 96)	2.980 (df = 94)	2.850 (df = 90)
F Statistic	0.154 (df = 1; 98)	1.250 (df = 3; 96)	0.920 (df = 5; 94)	2.050** (df = 9; 90)

\*p < .1; \*\*p < .05; \*\*\*p < .01

Table 4. Analysis of support for defunding the police. The prompted reflection treatment does not have a statistically significant effect on defunding the police. While not causal, the age covariate appears to be correlated with support for defunding the police.

Once again, we saw no statistical significance in the treatment effect. In this set of models, the only covariate with statistical significance is age. Particularly, there is a highly statistically significant difference between those who are under the age of 25 years old and those in the 40 to 54 years old age range with the latter being far less supportive of defunding the police.

### Variable 3 - Attitudes Towards Building New Prisons

In the third set of models, we will study the effect of the treatment on participants' responses to how strongly they disagree or agree with the following statement: "The government should build new prisons."

Table 5 : Casual effect of prompted reflection on support for abolition on new-prisons

	New Prisons			
	(1)	(2)	(3)	(4)
Treatment	-0.105 (0.509)	-0.099 (0.515)	0.029 (0.795)	-0.494 (0.760)
Independent		0.746 (1.090)	0.366 (1.250)	0.807 (1.380)
Liberal		0.928 (0.942)	0.862 (1.130)	0.892 (1.210)
XLAB			-1.050 (0.722)	-2.520*** (0.699)
Age(25-39)				-1.160* (0.694)
Age(40-54)				-4.030** (1.980)
Woman				0.697 (0.673)
Genderqueer/Non-binary				-0.740 (1.390)
Xlab-Treatment			0.003 (1.060)	0.372 (1.090)
Intercept	7.730*** (0.342)	6.880*** (0.917)	7.520*** (1.190)	8.500*** (1.350)
N	100	100	100	100
R2	0.0004	0.009	0.050	0.153
Adjusted R2	-0.010	-0.022	-0.001	0.068
Residual Std. Error	2.510 (df = 98)	2.520 (df = 96)	2.500 (df = 94)	2.410 (df = 90)
F Statistic	0.043 (df = 1; 98)	0.276 (df = 3; 96)	0.988 (df = 5; 94)	1.810* (df = 9; 90)

\*p < .1; \*\*p < .05; \*\*\*p < .01

Table 5. Analysis on opinions regarding the building of new prisons. The prompted reflection treatment does not have a statistically significant effect. While not causal, both age and XLab covariates seem to be negatively correlated with opinions about new prisons. Additional experimentation is needed to further study and determine if there is a causal effect.

This third set of models once again indicates a small estimated treatment effect with no statistical significance. Despite no emerging statistically significant treatment effect, this model

indicated another statistically significant covariate – the XLab indicator. Once again, the generational differences show a significance at the 0.05 level with older participants responding -4.03, with a standard error of 1.98, in comparison to the youngest age bracket.

#### Variable 4 - Attitudes Towards Defunding Prisons

Fourth, we analyzed the treatment effect on attitudes towards defunding prisons. Participants responded to the following statement on a scale from 0 to 10: “I support defunding prisons and reallocating funds to education, housing, and other programs.”

Table 6 : Casual effect of prompted reflection on support for abolition on defund-prison

	Defunding Prison			
	(1)	(2)	(3)	(4)
Treatment	0.463 (0.502)	0.467 (0.516)	0.874 (0.767)	0.140 (0.709)
Independent		1.050 (1.780)	0.804 (1.960)	1.170 (2.020)
Liberal		1.650 (1.700)	1.520 (1.840)	1.510 (1.920)
XLAB			-0.226 (0.778)	-1.970** (0.785)
Age(25-39)				-1.560** (0.743)
Age(40-54)				-4.930*** (1.390)
Woman				0.789 (0.702)
Genderqueer/Non-binary				0.245 (0.912)
Xlab-Treatment			-0.615 (1.050)	-0.072 (1.070)
Intercept	7.380*** (0.360)	5.930*** (1.770)	6.190*** (1.990)	7.440*** (2.020)
N	100	100	100	100
R2	0.009	0.038	0.051	0.214
Adjusted R2	-0.002	0.008	0.0002	0.136
Residual Std. Error	2.500 (df = 98)	2.490 (df = 96)	2.500 (df = 94)	2.330 (df = 90)
F Statistic	0.844 (df = 1; 98)	1.270 (df = 3; 96)	1.000 (df = 5; 94)	2.730*** (df = 9; 90)

\*p < .1; \*\*p < .05; \*\*\*p < .01

Table 6. Analysis on opinions regarding the defunding of prisons. The prompted reflection treatment does not have a statistically significant effect. While not causal, both age and XLab covariates seem to be negatively correlated with opinions about new prisons. Additional experimentation is needed to further study and determine if there is a causal effect.

The last set of models gauging attitudes towards abolition once again show no statistically significant treatment effect, while age and XLab covariates did show some significance, we cannot make any causal claims. Further experiments should be conducted to explore the significance.

## Variable 5 - Donation

In our last set of models, we will study the effect of the treatment on donation to Survived & Punished, a grassroots abolitionist organization that works with incarcerated survivors of gender violence.

Table 7 : Casual effect of prompted reflection on support for abolition on Donation.

	Donation (in cents)			
	(1)	(2)	(3)	(4)
Treatment	-57.900 (45.500)	-55.600 (45.400)	-67.800 (76.400)	-70.100 (86.600)
Independent		174.000*** (65.400)	105.000 (89.800)	91.100 (85.700)
Liberal		159.000*** (37.500)	156.000** (77.600)	142.000** (70.000)
XLAB			-243.000*** (56.900)	-275.000*** (74.400)
Age(25-39)				-85.100 (75.100)
Age(40-54)				4.540 (127.000)
Woman				-15.500 (52.200)
Genderqueer/Non-binary				8.220 (137.000)
Xlab-Treatment			67.800 (90.800)	64.100 (99.800)
Intercept	213.000*** (31.800)	60.500* (35.500)	194.000** (84.700)	258.000*** (99.100)
N	100	100	100	100
R2	0.016	0.046	0.256	0.277
Adjusted R2	0.006	0.016	0.217	0.205
Residual Std. Error	226.000 (df = 98)	225.000 (df = 96)	201.000 (df = 94)	202.000 (df = 90)
F Statistic	1.630 (df = 1; 98)	1.540 (df = 3; 96)	6.470*** (df = 5; 94)	3.830*** (df = 9; 90)

\*p < .1; \*\*p < .05; \*\*\*p < .01

Table 7. Analysis on donation amount in support of abolition. While the prompted reflection did not have a statistically significant effect, it had a negative average impact.

Interestingly, all of the above models show a negative effect of prompted reflection on donation, albeit none of the treatment effects are statistically significant. The lack of statistical significance for the treatment effects indicates the potential that these results arose from chance. However, we still posit several possible reasons for why we saw these results. Foremost, in diving deeper into Freire's theoretical framework, the prompted reflection may not have been enough to cultivate concrete activism that would generate meaningful praxis due to the participants' positionalities. While we understand how carcerality touches the lives of many through numerous identities, Freire (2017) makes explicit that critical pedagogy must center those who are directly impacted by the structure of oppression (p. 45). Therefore, the impact of prompted reflection may not have been nearly as effective because we did not account for our subjects' relationship to the PIC and whether or not they are directly or closely

impacted by the PIC. Developing a praxis of solidarity requires the radical humanization of those who are oppressed – something this article did not necessarily invoke.

Secondly, looking at the model results, including the XLab indicator reveals that XLab participants were donating far less than those recruited outside of XLab at statistically significant levels. We believe that there could've been a difference between the participants recruited from XLab compared to those recruited from our diverse social circles because XLab participants are particularly incentivized by the \$5 in exchange for their participation.

## ***Conclusion***

The purpose of this study was to gain a better understanding of whether prompted reflection in the political education context can strengthen people's attitudes about abolition of the prison industrial complex. Our hypothesis was that with the help of the prompted reflection, people can gain a deeper understanding of abolition and what it stands for, while critically engaging with the principles of the movement. However, this experiment failed to support the hypothesis as we proposed here. There are three key findings of the present research. First, in our experiment, after answering the prompted reflection question, the estimated treatment effects were showing positive effects to increase people's feelings towards abolition of the prison industrial complex. However, the treatment effects did not reach any significance level, which meant that the difference that we observed here might have happened due to the chance. Second, covariates like gender, age were consistently showing statistical significance in our outcome models, which indicated that people's gender and age could impact their opinions about the police abolition topic. In order to find a causal claim about the impacts of these covariates, further experiments should be conducted. Third, participants from XLab observed a different behavior compared to our personal circles and it reached a high statistical significance level. This is due to the fundamental difference between the two groups, as the majority of XLab students were Berkeley undergraduates who are young and majority of them are liberal.

Though the results were not statistically significant in this experiment, this research is still meaningful. Bringing experiments to a highly theoretical space, we created a feasible experiment design that not much research or experiment has been conducted in this field and we opened a way to conduct experiments that measure participants' opinions while prompting them to think about prison and police abolition. From this experiment, we observed that political leaning, age, and gender could have a potential impact on people's opinions about abolition, which can be helpful for future studies.

There are several potential limitations concerning the results of this study. A first limitation concerns the numbers of participants. Due to the limitation of budget, we only included 100 people in our study, resulting in the power of 0.69 with medium effect size. With more people participating in the experiment, the power will increase and thus we can hopefully observe and tease out a more

nuanced difference between treatment and control. Moreover, beyond sample size, the make-up of the sample may have also contributed to lack of significant results. Based on critical pedagogy, the pedagogical practice must engage those who are impacted by the system of oppression (i.e. the prison industrial complex); however, most of the participants we have recruited for our experiment were UC Berkeley students and we do not know how they are impacted by the system. A second potential limitation is that we did not have a strong enough treatment to make the difference more prominent between the control and treatment groups. Future experiment designs can pursue a more comprehensive design, involving a longitudinal study with a series of workshops to engage participants in the treatment group. The last limitation is that there is a possibility that a non-ideal pairing of treatment question and article was chosen for the design. Upon our own reflection, the linkages between safety and the article's content may not have been as explicit as we had hoped.

Much work remains to be done in understanding the full impacts of critical pedagogy on effective political education with regards to abolition and, more generally, social movements. Our hopes are that this experiment will serve as a springboard for more fruitful discussion and serious scholarship around the impacts of critical pedagogy. Associate Professor of African American Studies Ruha Benjamin writes: "Remember to imagine and craft the worlds you cannot live without, just as you dismantle the ones you cannot live within." At the heart of both critical pedagogy and social movements like the abolitionist movement are a deep love for humanity, one that permeates through generations of struggle and resilience. It is our hope that we continue this legacy through this scholarship and that others will do the same.

## ***Resources***

Github with code, data, and other references: <https://github.prod.oc.2u.com/jraju/W241-FP>

## ***References***

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